

CLAIMS

What is claimed is:

- 1) A method for extending the effective period during which tissue treated with a clostridial toxin is paralyzed comprising: contacting said tissue with a composition comprising an agent able to prevent the neuroregenerative activity of a polypeptide selected from the group consisting of: IGF I, IGF II, ciliary neurotrophic factor, NT-3, NT-4, brain-derived neurotrophic factor, leukemia inhibitory factor, tenascin-C, ninjurin, neural cell adhesion molecule, and neural agrin.
- 2) The method of claim 1 wherein said contacting step occurs at the same time as said tissue is treated with said clostridial toxin.
- 3) The method of claim 1 wherein said contacting step occurs prior to treatment of said tissue with said clostridial toxin.
- 4) The method of claim 1 wherein said clostridial toxin comprises BoNT.
- 5) The method of claim 1 wherein said clostridial comprises BoNT/A.
- 6) The method of claim 1 wherein said agent is selected from the group consisting of:
 - a) an antibody able to selectively bind said polypeptide,

- b) a competitive inhibitor of said polypeptide,
 - c) a compound able to selectively prevent the expression of a gene encoding said polypeptide,
 - d) a binding protein other than an antibody, and
 - e) a ribozyme,
 - f) a nucleic acid encoding an inactive growth factor receptor able to bind said growth factor.
- 7) The method of claim 6 wherein said agent is an antibody able to selectively bind said polypeptide.
- 8) The method of claim 6 wherein said agent is a competitive inhibitor of said polypeptide.
- 9) The method of claim 6 wherein said agent is a compound able to prevent the expression of a gene encoding said polypeptide.
- 10) The method of claim 6 wherein said agent is a binding protein other than an antibody.
- 11) The method of claim 9 wherein said polypeptide is selected from the group consisting of IGF I and IGF II, and said binding protein is selected from the group consisting of IGF-BP4 and IGF-BP5.
- 12) A method for stimulating the outgrowth of neural sprouts from damaged neural tissue comprising: contacting said tissue with a composition comprising a polypeptide which comprises a neurotrophically active domain derived from an agent selected from the group consisting of IGF I,

IGF II, ciliary neurotrophic factor, NT-3, NT-4, brain-derived neurotrophic factor, leukemia inhibitory factor, tenascin-C, ninjurin, neural cell adhesion molecule, and neural agrin.

13) The method of claim 11 wherein said agent comprises IGF I.

14) The method of claim 11 wherein said agent comprises IGF II.

15) The method of claim 11 wherein said agent comprises NT-3.

16) The method of claim 11 wherein said agent comprises ciliary neurotrophic factor.

17) The method of claim 11 wherein said agent comprises NT-3.

18) The method of claim 11 wherein said agent comprises NT-4.

19) The method of claim 11 wherein said agent comprises brain-derived neurotrophic factor.

20) The method of claim 11 wherein said agent comprises leukemia inhibitory factor.

21) The method of claim 11 wherein said agent comprises tenascin-C.

22) The method of claim 11 wherein said agent comprises
ninjurin.

23) The method of claim 11 wherein said agent comprises
neural-cell adhesion molecule.

24) The method of claim 11 wherein said agent comprises neural
agrin.